ABB BALDOR RELIANCE

Customer information packet

ECS100T8H1DF4

1HP, 1800RPM, 3PH, 60HZ, 145T, 3516B, TEFC, F1
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/23/2026 3:48:43 AM

Specifications

Enclosure	TEFC
Frame	145T
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Brushless Wound Field PM Rotor
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
Agency Approvals	BLUETOOTH CULUS WEEE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	2.500 A @ 230.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	2.5 a
Insulation Class	F
Inverter Code	03

Part Detail

Revision	C
Type	AC
Mech. spec.	35E5209
Base	
Status	PRD/A
Elec. spec.	35WGG932
Layout	35LYE5209
Eff. date	05-20-2025
CD Diagram	CD0006B03
Poles	04
Leads	3#14 13" LONG LEADS Y
Proprietary	False
Created date	05-06-2024

KVA Code	-
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.38 IN
Power Factor	98
Product Family	General Purpose
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1800 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3968A01A01									
CAT.NO.	ECS100T8H1DF4								
SPEC.	35E5209G932G2								
FRAME	145T			**ENCL.**	TEFC		**IP**	54	
HP	1		40	**C AMB**		CONT			
NOM. EFF.	91	**PF**	98		**SF**	1			
VOLTS	230			**FLA**	2.5				
RPM	1800			**RPM-MAX**		4000			
HZ	60		**PH.**	3	**CLASS**	F			
BEMF (V)	135				**RS (OHMS)**	4.9			
LD (MH)	30.8				**LQ (MH)**	135			
VPWM	**CHP**	60	**TO**	133					
CT	6	**TO**	60	**VT**	6	**TO**	60		
MATCHED INV	ECI8A7P0								
DE	6205			**ODE**	6203				
SERIAL #									

NP3978A01						
PART NO.	ECI8A7P0					
U1	240	**PH**	1	**HZ**	60	
I1	6.6	**W/EXT. CHOKE**			5.8	
SERIAL #						

Parts List

Part number	Description	Quantity
SA427995	SA 35E5209G932G2	1.000 ea
RA420150	RA 35E5209G932G2	1.000 ea
ECI8A7P0SP	200-240V 1PH IN/230V 3PH OUT, 2.0HP, 7.0	1.000 ea
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 ea
HA4067A01	PUSH IN DRAIN FITTING (BLACK)	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3123C00	MASTER DE,205 BRG,.998 SH,#26 DRN,LCK BR	1.000 ea
HA4067A01	PUSH IN DRAIN FITTING (BLACK)	1.000 ea
51XN1032A18	10-32 X 1 1/8 HX WS SL SR (ESKAY)	2.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	2.000 ea
15XN0832A12	SCREW, 8/32 X 3/4" PAN HDPHIL, MS	3.000 ea
HS0052A00	35 FRAME TOP ECM HEATSINK MACHINING	1.000 ea
GS0025	35 FRAME TOP MOUNT GASKET	1.000 ea
WD4100A30	HEYCO #3833 RUBBER PLUG KOS-LT - 1/2	4.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	4.000 ea
15XN1032A10	SCREW PAN HD 10-32 X .625 (PHILLIPS)	4.000 ea
MJ5002A02	NON-CORROSIVE SILICONE, DOW 748, 10.3 OZ	0.001 ea
HW4600B32SP	V-RING SLINGER 1.000 X 1.540 X .24 VITON	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH3006	35 FRAME TOP ECM FAN HOUSING	1.000 ea
35CB3505A00	35 FRAME TOP ECM PLASTIC COVER WITH FOAM	1.000 ea
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
MJ5002A02	NON-CORROSIVE SILICONE, DOW 748, 10.3 OZ	0.001 ea
NP3968A01A01	NP LABEL WEE, SH GND, C-UL-US, QR, ECS	1.000 ea

NP3978A01	MYLAR BALDOR-RELIANCE SYNC IPM DRIVE 4.3	1.000 ea
G0PA1000	PKG GRP, PRINT PK1026A06	1.000 ea
MN451	EC Titanium Quick Start 06/22	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

Volts	230	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.5	Max Amps		Cs Diagram	CS1127	BEMF	135
HP	1	VFD#	ECIN8A7P0			LD	29.3
RPM	1800	S.F.	1.00			LQ	136
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	4.8724 Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

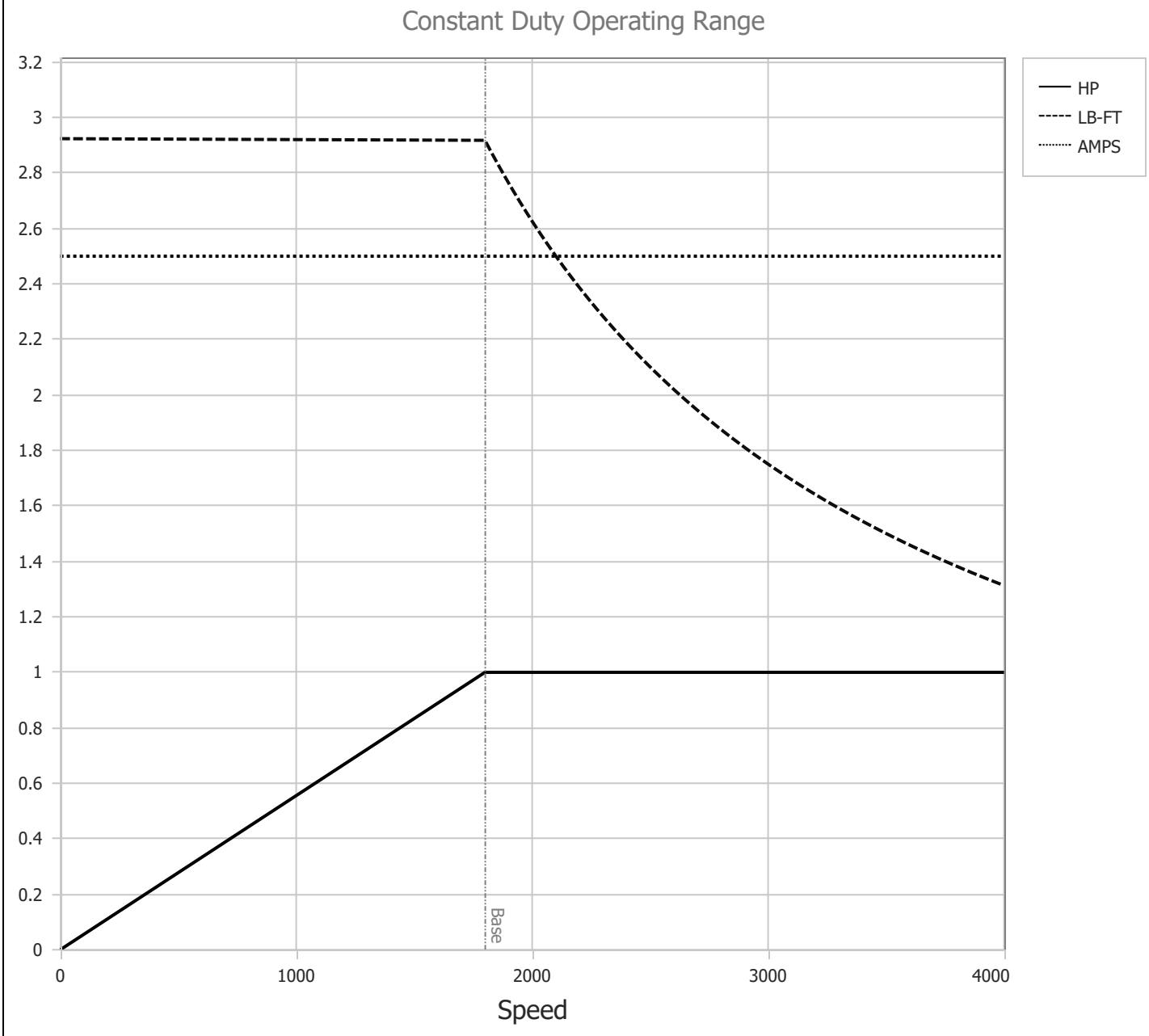
	RPM	% Speed	LB-FT	% Torque	HP	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1624	90%	2.9	100%	0.9	89.1	10.93%	82
P2	903	50%	2.9	100%	0.5	84.5	9.11%	69
P3	451	25%	2.9	100%	0.3	78.1	6.96%	52
P4	1625	90%	1.5	50%	0.5	88.9	5.64%	43
P5	903	50%	1.5	50%	0.3	87.1	3.70%	28
P6	903	50%	0.7	25%	0.1	86.4	1.97%	15
P7	451	25%	0.7	25%	0.1	83.5	1.24%	9

61800-9-2 PDS Performance at Reference Operating Points

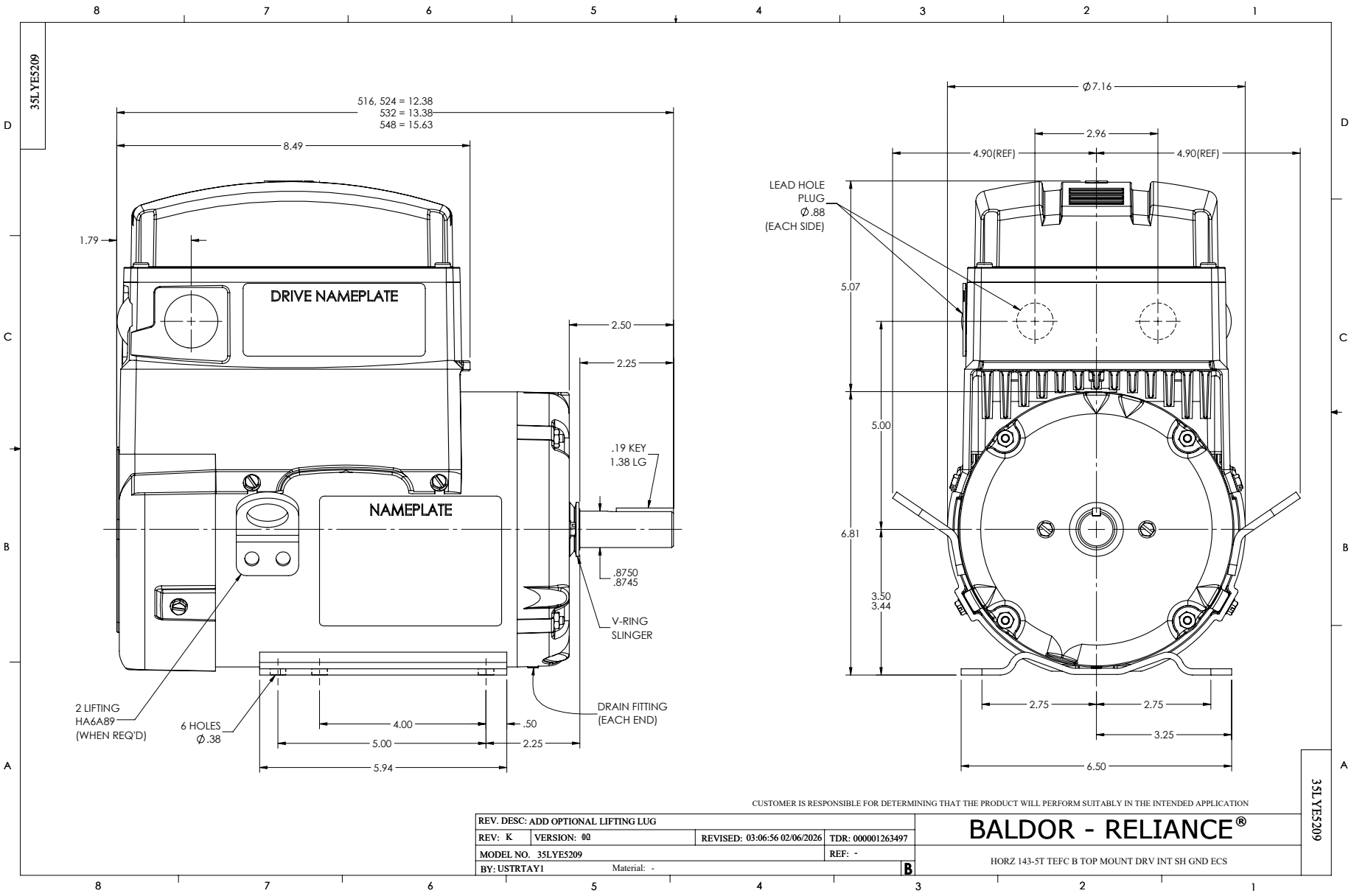
	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1809	100%	2.9	100%	1.0	87.0	14.82%	112
P2	903	50%	2.9	100%	0.5	80.4	12.09%	91
P3	300	17%	2.9	100%	0.2	64.7	8.99%	68
P4	1807	100%	1.5	50%	0.5	85.6	8.38%	63
P5	903	50%	1.5	50%	0.3	82.0	5.49%	41
P6	300	17%	1.5	50%	0.1	66.8	4.12%	31
P7	903	50%	0.7	25%	0.1	79.4	3.24%	24
P8	300	17%	0.7	25%	0.0	64.8	2.25%	17

Points not taken in certified order.

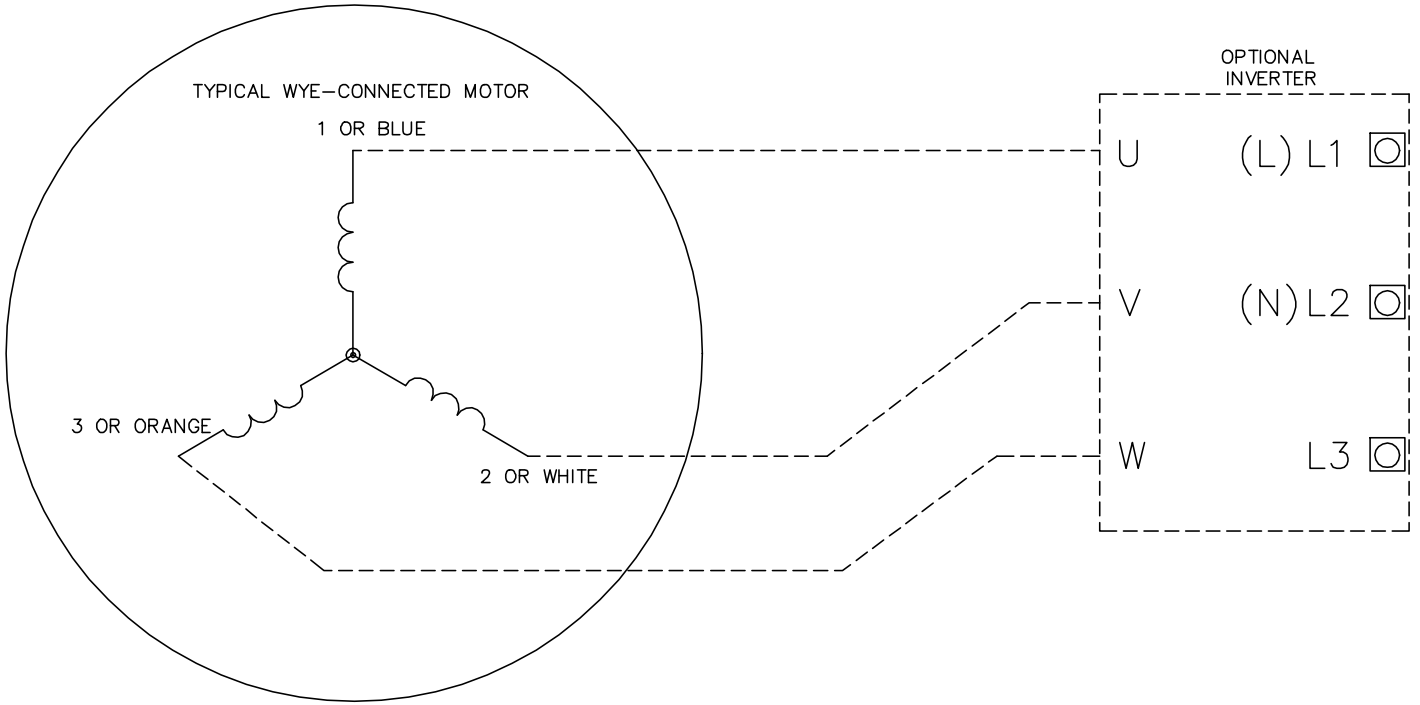
Volts	230	Max RPM	4000	Conn Diag.	CD0006B03	Leads	3
Amps	2.5	Max Amps		Cs Diagram	CS1127	BEMF	135
HP	1	VFD #	ECIN8A7P0			LD	29.3
RPM	1800	S.F.	1.00			LQ	136
Phase/Hz	3/60	Rating	40C AMB-CONT			Rs	4.8724 Meas L-L



BALDOR • RELIANCE	DR By: R & D CK By: USBIBAK APP By: USWEQUA1 Date: 12/20/2024	**AC MOTOR PERFORMANCE CURVES**	**35WGG932** 35-0000-1609 *Test - 111747*


35LYE5209
516, 524 = 12.38
532 = 13.38
548 = 15.63
8.49
1.79
DRIVE NAMEPLATE
NAMEPLATE
2.50
2.25
.19 KEY
1.38 LG
.8750
.8745
V-RING
SLINGER
2 LIFTING
HA6A89
(WHEN REQ'D)
6 HOLES
Ø .38
4.00
.50
5.00
2.25
5.94
DRAIN FITTING
(EACH END)
Ø7.16
2.96
4.90(REF)
4.90(REF)
LEAD HOLE
PLUG
Ø .88
(EACH SIDE)
5.07
5.00
6.81
3.50
3.44
2.75
2.75
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: ADD OPTIONAL LIFTING LUG
REV: K
VERSION: 00
REVISED: 03:06:56 02/06/2026
TDR: 000001263497
MODEL NO. 35LYE5209
REF: -
BY: USTRTAY1
Material: -
B
BALDOR - RELIANCE®
HORZ 143-5T TEFC B TOP MOUNT DRV INT SH GND ECS
35LYE5209

CD0006B03



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.

CD0006B03

REV. DESC: CHANGE LEAD COLORS TO BLUE WHITE ORANGE		
REV. LTR: A	VERSION: 01	TDR: 000001158598
FILE: \AAA\00252\917	REVISED: 11:01:03 01/19/2021	BY: ENMARSO
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE CONNECTED, ECS

SH 1 of 1